
TUNE OUT SMOG

Choose Clean Air and Air Quality Mobile Source Programs

c/o Utah Department of Environmental Quality
168 North 1950 West
Salt Lake City, UT 84116
www.cleanair.utah.gov

TUNE OUT SMOG

A well-maintained vehicle = less emissions
Less emissions = less smog

IT IS YOUR CHOICE

Choose Clean Air

Over half of all of our air pollution comes from
vehicle emissions. YOU can help
make a real contribution to clean air by properly
driving and maintaining your vehicle.

TUNE OUT SMOG

START NOW BY:

- ✓ **Avoiding unnecessary driving:** Consolidate trips, telecommute, carpool, use mass transit, or walk or bike (or bike or run).
- ✓ **Driving wisely:** Avoid actions that increase gasoline consumption such as excessive idling, stop-and-go driving, over-using your air conditioner, or carrying excessive weight.
- ✓ **Maintaining your vehicle:** Follow the guidance in your owner's manual. Seek regular tune-ups by a skilled technician. Check regularly and periodically replace air filters, belts, coolant hoses, fluids, oil, oil filters, and tires (watch pressure and wear). Use this checklist to guide you.
- ✓ **Checking gas mileage:** to ensure your vehicle is operating efficiently.

TUNE OUT SMOG

Items to store in car during winter:

- ☐ Blankets/extra winter clothing including hat, gloves.
- ☐ Sand or cat litter.
- ☐ Roll of paper towels.
- ☐ Ice scraper/brush.
- ☐ Flashlight with fresh batteries.
- ☐ Small shovel.
- ☐ Jumper cables.
- ☐ Flares or bright-colored cones.

TUNE OUT SMOG

✓ WINTER-izing:

- ☐ Before winter turns cold, check:
- ☐ Battery - Check corrosion around terminals and clean with baking soda solution.
- ☐ Heater operation
- ☐ Radiator
- ☐ Tire Pressure, including spare. Keep at proper pressure. Tires deflate as temperatures drop.
- ☐ Brakes
- ☐ Engine oil - Check for proper viscosity.
- ☐ Windshield wipers, washers, and fluid.
- ☐ Exterior Lights.

TUNE OUT SMOG

FOUR GOOD REASONS to perform preventative maintenance on your vehicle

- 1 A well-maintained vehicle **saves you hundreds of dollars each year** by avoiding major repairs in the future.
- 2 A well-maintained vehicle is **less likely to break down** on the highway.
- 3 A well-maintained vehicle **protects you and your family** because it is safer to drive. About 5% of all motor vehicle accidents are caused by vehicle neglect.
- 4 A well-maintained vehicle with 50,000 miles on it **pollutes only 40% as much as the same vehicle** that is poorly maintained.

TUNE OUT SMOG

Maintenance CHECKLIST

The following information is intended to provide general guidance.

Check your owner's manual for specifics related to your vehicle.

✓ **A/T - Automatic Transmission**

Overheating causes most failures.

- ☐ The A/T can overheat if you rock your car between drive and reverse when you're stuck in snow.
- ☐ If the A/T fluid turns brown or has a burnt odor, check with owner's manual or technician to determine if fluid and filter need changing.
- ☐ For severe driving conditions, change your transmission fluid and filter every 15,000 miles.

TUNE OUT SMOG

✓ **Tune-up - Newer Vehicle (1996 or newer)**

Does not have distributor cap, rotor or carburetor.

Check at 30,000 miles:

- ☐ Spark plug wires; newer cars run hotter.
- ☐ Exhaust gas recirculation system (EGR)

Replace:

- ☐ Oxygen sensor wires: #1 or #2 unheated type at 30,000 to 50,000 miles; #3
- ☐ or #4 heater type at 60,000 to 100,000 miles.

Replace after 50,000 miles:

- ☐ Double platinum spark plugs after 50,000 miles.

✓ **Tune-up - All Model Vehicles:**

NEVER ignore Check Engine Light.

Follow recommended maintenance schedule in your owner's manual

TUNE OUT SMOG

✓ **Tune-up – Older Vehicle (pre-1996)**

Adjust:

- ☐ Curb Idle, Fast Idle, and Timing

Check:

- ☐ Carburetor, Distributor, Cap and rotor, Ignition Timing

Replace every 15,000 miles:

- ☐ Air filter

Replace every 25,000 miles:

- ☐ Transmission fluid and filter, PCV valve and filter

Replace every 30,000 miles:

- ☐ Distributor points and condensers, Spark plugs

TUNE OUT SMOG

✓ **A/C - Air Conditioner**

Always use factory-recommended refrigerants.

Older cars use R-12 (also known as Freon). New cars use R-134a.

- ☐ Do not use R12 substitutes, such as propane or butane, due to their EXTREME flammability.
- ☐ Never mix refrigerants.

✓ **Belts**

Old cars have separate belts that run the A/C, alternator, radiator fan, power steering motor, and water pump. New cars have only one belt called a “serpentine” belt.

- ☐ Replace single belts at 60,000 miles (or sooner, if they crack.)
- ☐ Replace serpentine belts every two years or at 30,000 miles (or sooner, if they crack.)

TUNE OUT SMOG

✓ Brakes

Visually inspect brake linings once a year or every 12,000 miles.

- ❑ When replacing brake linings or disk brakes, replace in pairs (both front or both rear) to avoid uneven braking and sideways pulling.

Hydraulic System: Signs of impending brake failure are:

- Brakes pulsate as you come to a stop.
- Hard scraping or grinding sound when brakes are applied.
- Brake light comes on. Go to service station immediately. Hydraulic system is probably about to fail.
- A rupture of a brake line will result in a loss of over 50% braking power.

TUNE OUT SMOG

✓ Tires

Keep tires properly inflated because:

- ❑ Both under-inflation and over-inflation can cause more frequent tire failure.
- ❑ Tire pressure drops 1 psi for every 10 degrees in temperature.
- ❑ A 10% under-inflation of all four tires will decrease gas mileage by 10%.
- ❑ A rhythmic thumping sound while driving may signal that one or more tires are out of balance.
- ❑ Tendency to hydroplane on very wet roads increases as tread depth decreases.

Tread should be at least 1 1/6" on two adjacent tread lines. Also, tires should be rotated on a regular basis. Check your owner's manual for guidance.

TUNE OUT SMOG

✓ Severe Driving Conditions

More than 15,000 miles a year under one or more of the following conditions:

- ☐ Stop-and-go traffic.
- ☐ On snow or ice.
- ☐ On hilly terrain.
- ☐ In dusty conditions.
- ☐ With a trailer/boat in tow.
- ☐ In extreme cold and/or heat

✓ Belts

Not all cars have timing belts. If car is equipped with timing belt, replace it every 60,000 miles. Failure to do so could result in timing belt breakage and expensive engine rebuild or repair to cylinders, valves, and pistons.

TUNE OUT SMOG

✓ Check Engine Light

Never Ignore Check Engine Light — It is your vehicle's way of telling you that an emissions-related malfunction is present. While you don't need to panic, you should take your vehicle to a qualified service facility as soon as possible. Ignoring the light can mean a much more costly fix in the not too distant future.

✓ Coolant Hoses

Coolant hoses (upper radiator hose, bypass hose, and heater hose) should be changed every four years. External appearance of hoses does not indicate overall condition. To check condition of hoses:

- ☐ Engine must be cold.
- ☐ Use finger and thumb, not whole hand, to check for weakness.
- ☐ Squeeze area of hose near connectors.
- ☐ Squeeze area near middle of hose.

TUNE OUT SMOG

- ☐ If ends are soft and feel mushy compared to middle of hose, it's probably time to replace hoses.
- ☐ Oil spilled on hoses will weaken them.

✓ **Cooling Systems**

Warning signs of a leaking, clogged or corroded radiator, or leaking hoses, are:

- ☐ Temperature gauge runs high.
- ☐ Coolant on pavement or floor of passenger compartment.
- ☐ Poor A/C or heater performance.

✓ **Fuel Efficiency and Mileage**

- ☐ Periodically check your mileage to determine your vehicle's fuel efficiency. (Use the chart included with this packet. Fuel efficiency should remain relatively constant for the same driving conditions and terrain. If it drops, this could be a signal the something is wrong. Mechanical problems might include timing, spark plugs, air fuel ratios out of adjustment, under-inflated tires, or dirty air filter.

TUNE OUT SMOG

- ☐ Keep in mind that mileage will change depending on how (ex. whether acceleration is sharp or moderate) and where the vehicle is driven (ex - flat vs. hill, freeway vs. surface streets, etc.). EPA mileage is listed in the owner's manual and may be used as an indicator of expected estimated under optimal conditions.

✓ **Oil Change**

The **most important** preventive measure.

- ☐ Change oil every six months or 6,000 miles under normal use.
- ☐ Change oil every three months or 3,000 miles under severe use; see Severe Driving conditions.

✓ **Power Steering Fluid**

Check power steering fluid and power steering fluid hoses for leaks. Significant loss of fluid can cause the steering to fail; serious accidents have resulted.

- ☐ Replace power steering fluid every 24,000 miles.